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METHOD AND APPARATUS FOR EMBOSSING EXPANDED GRAPHITE SHEET MATERIAL UNDER REDUCED PRESSURE

Abstract

An improved embossing expanded graphite sheet material comprises removing at least a portion of the gas from within the material by exposing the material to a pressure less than atmospheric pressure, and then embossing the material. Preferably, the pressure to which the material is exposed is less than or equal to about 400 torr. An improved apparatus for embossing expanded graphite sheet material at a pressure less than atmospheric pressure comprises: at least one embossing device; at least one compression device adapted to urge the embossing device against the material; an embossing chamber comprising the at least one embossing device and adapted to receive the material, and to be substantially gas-tight at least when the embossing device is urged against the material by the pressing device; and an evacuation device for reducing the pressure within the embossing chamber. The atmosphere within the embossing chamber may comprise an inert gas, such as, for example, nitrogen, helium and argon.